

Remarks

Claims 1-14 have been canceled and claims 15-30 have been added. Support for new claims 15-30 appears in the originally filed claims, in general throughout the Specification, and in particular at page 2, line 23 to page 3, line 17.

§ 102 Rejections

Claims 1-4, and 6-7 stand rejected under 35 USC § 102(b) as being anticipated by Wilson (5,502,937).

§ 103 Rejections

Claim 5 stands rejected under 35 USC § 103(a) as being unpatentable over Wilson in view of Eiermann (4,584,214). Claims 9 and 10 stand rejected under 35 USC § 103(a) as being unpatentable over Wilson in view of Sakno (5,634,304).

New claims 15-30 are believed to be patentable over the cited references for the following reasons.

Wilson discloses flexible composite materials which are suitable for use as fire barriers for either static or dynamic joints. A first class of systems is described as “long” versions because the fire barrier extends the entire length of the insulating component (see Wilson at col. 4, 13-17, and col. 8, lines 34-54). The long system illustrated in Fig. 7 includes a first portion 72 that extends from mullion attachment pin 17 horizontally and then vertically past attachment pin 18, between the insulation 12 and safing 14. Second portion 74 includes an “S” shaped portion that is accumulated over the upper surface of safing 14, being attached to floor 20 by attachment pin 19. (See Wilson at col. 8, lines 43-49). A second class of systems is described as “short” versions. In the short systems, the fire barrier is attached to that portion of the insulating component positioned above the safing, and is also attached to the floor. Five short systems are illustrated in Figs. 10-14. (See Wilson at col. 4, lines 61-67 and col. 9, lines 60-67).

Wilson therefore discloses a sheet of material that is used to form a fire barrier for joints such as wall/floor joint. The sheet is supported by the building structure (i.e. the safing, insulation, mullion) and is attached to the structure via attachment pins 17, 18, and 19. Thus, Wilson fails to disclose a composite fire stop article for placement in an opening in a partition

thereby forming a fire barrier in the opening without a secondary support structure as defined in independent claims 15 and 30. Since neither Wilson, or any of the remaining cited references discloses, teaches, or suggests a fire stop article as defined in independent claims 15 and 30, these claims are believed to be allowable over the cited references.

Nor do Wilson or any of the remaining cited references disclose, teach, or suggest a fire stop article for fire stopping an opening including at least one item passing through the opening as defined in dependent claim 17, a fire stop article wherein a plurality of fire stop articles can be used to create a fire stop in an opening having an area of greater than 300 square inches and a concrete substrate for adhesion that passes a hose stream test in accordance with ASTM Test E814 as defined in dependent claim 18, a fire stop article including an enclosure surrounding said insulating material and said intumescent material as defined in dependent claim 19, a fire stop article wherein the enclosure is a sealed bag formed of polymeric material as defined in dependent claim 20, or fire stop articles that are compression fit into the opening as defined in dependent claim 29. Accordingly, at least dependent claim 17-20 and 29 are believed to be independently patentable over the cited references.

With respect to the Examiner's argument that it would have been obvious to one of ordinary skill in the art to have provided Wilson with a polyethylene enclosure arranged around the intumescent material in order to contain the expansion of the intumescent material and to focus its expansion on collapsing the conduit without reliance upon the containment by surrounding concrete, Applicant notes that the Wilson fire protective flexible composite insulating system is not designed or intended to collapse a conduit (or any other item) so there would be no reason to provide the Wilson system with an enclosure such as the Sakno enclosure to focus the expansion as suggested by the Examiner.

Moreover, it is noted that the enclosure of the present invention is not intended to contain or focus the expansion of the intumescent material. Rather, the enclosure 14 of the present invention is preferably provided around the layers of intumescent material 4, 8 and the insulating material 6 to prevent or minimize the exposure of the installer to objectionable components of the composition and to allow adjacent articles to be slid next to each other, thereby facilitating installation. In fact, providing the present invention with an enclosure such as the Sakno enclosure would interfere with the effectiveness of the fire stop article.

In view of the above, it is submitted that the application is in condition for allowance.
Reconsideration of the application is requested.

Respectfully submitted,

MAY 23, 2003

Date

By: David B. Patchett

David B. Patchett, Reg. No.: 39,326

Telephone No.: (651) 736-4713

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833